

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of William C. Bushong et al.
Serial No. 10/582,193
Filed May 9, 2007
Confirmation No. 3908
Examiner: Stephen J. Yanchuk

Art Unit 1795

For HIGH CAPACITY ALKALINE CELL UTILIZING CATHODE EXTENDER

September 24, 2009

RESPONSE TO RESTRICTION REQUIREMENT

TO THE COMMISSIONER FOR PATENTS,

SIR:

A Restriction Requirement was issued on July 30, 2009, wherein an election was required between the following groups of claims:

- Group I: Claims 1, 2, 16, 19, 46, 47 and 59, drawn to a cell with a discharge capacity that exceeds the discharge capacity of the sole first active material;¹
- Group II: Claims 1, 4, 46 and 49, drawn to a cathode with a MnO₂ first active layer;
- Group III: Claims 1, 7, 8, 12-15, 46, 51-52 and 56, drawn to an extender with copper;
- Group IV: Claims 1, 24, 46, 64 and 164, drawn to an anode with a specific internal volume ratio of 0.5 Ah/cc;
- Group V: Claims 1, 2, 29-31, 38, 42 and 46, drawn to an extender layer that exists connected to the cathode;

¹ The Office's language has been used to define the claims of Group I. However, it was not entirely clear to Applicants what the Office meant by "discharge capacity that exceeds the discharge capacity of the sole first active material." Applicants make this election under the presumption that the Office was referring to the terminology of dependent claim 2, which depends from independent claim 1. Claim 1 clearly refers to a cell having an extender different from the primary active material, wherein the extender has a discharge voltage that is lower than an initial discharge voltage of the primary active material.

- Group VI: Claims 1, 41 and 46, drawn to a primary active material that comprises at least one of an oxide and a hydroxide of at least one of nickel, lead, and silver; and
- Group VII: Claims 1, 45 and 46, drawn to a cell that is alkaline.

In response to the present Restriction Requirement, Applicants hereby elect the claims of Group I (i.e., claims 1, 2, 16, 19, 46, 47 and 59) for examination in this application. However, for the reasons set forth in detail below, this election is made **with traverse**.

Initially, it is to be noted that a restriction is only proper when there would be a serious burden if restriction were not required, as evidenced by separate classification, status, or field of search, even though the application includes claims to independent or distinct inventions.² MPEP §808.02 further states “[w]here, however, the classification is the same and the field of search is the same and there is no clear indication of separate future classification and field of search, no reasons exist for dividing among independent or related inventions.”

Applicants respectfully disagree with the Office’s assertion on page 2 of the current Office action, which states that dependent claims 4 and 7 are inconsistent and therefore not usable together. First, Applicants note that claims 4 and 7 depend from claim 1, not each other; as such, the limitations set forth in claims 4 and 7 are not required to be “usable together.” Second, Applicants note that the specification provides ample support for an oxide of copper, when used as an extender, having a discharge voltage lower than an initial discharge voltage of the primary active material, even when the primary active material is manganese oxide (*see, e.g.*, paragraphs [0048]-[0051] and [0065] of the specification). Applicants recognize that, in some instances, a compound such as **silver** copper oxide may have a discharge voltage higher than that of manganese dioxide. However, claim 7 requires only an “oxide of copper” (i.e., copper oxide), which does not include, for example, silver copper oxide

² MPEP §808.02.

(or, for that matter, any mixed oxide compound that has a discharge voltage higher than a primary active material as defined in claim 1); that is, claim 7 requires that the extender include CuO and/or Cu₂O.³

Further, Applicants note that the Amendment submitted on April 28, 2009 incorporated the limitations from dependent claim 6 into independent claim 1. As such, **the Office has already examined the current set of claims on the merits** for their respective limitations, and, accordingly, **it would not be an undue burden on the Office** (nor would it require a separate search) to examine the claims as a whole. That is, any search of the prior art and examination involving the claims of Group I will substantially co-extend with the search and examination of the claims of Groups II-VII. Thus, Groups I-VII may be searched and examined together without serious burden in accordance with MPEP § 808.02.

Moreover, Applicants note that on page 3 of the current Office action, the Office cites several PCT rules regarding “single general inventive concept.” Specifically, the Office cites **PCT** Rule 13.1 and PCT Rule 13.2 against the current **U.S.** application. Applicants are unaware of the relevance of these PCT rules with regard to the current U.S. application and respectfully request that the Office clarify the meaning of these rules and their relevance with respect to the current U.S. application.

For the reasons set forth above, Applicants respectfully request reconsideration of the present Restriction Requirement. Additionally, Applicants respectfully reserve the right to file divisional applications directed to any and all non-elected subject matter at a later date.

³ The specification provides support that an “oxide of copper” refers to copper oxide and not a mixed metal copper oxide. Therefore, if the Office believes the phrase “an oxide of copper” includes mixed metal copper oxides that would have a discharge voltage higher than that of the primary active material (such as silver copper oxide), Applicants would agree to amend claim 7 to read “copper oxide.”

The Commissioner is hereby authorized to charge any fee that may be needed for this Response, as well as any fee that may be needed during the entire pendency of the present application, to Deposit Account Number 01-2384 in the name of ARMSTRONG TEASDALE LLP.

Respectfully Submitted,

/ Derick E. Allen /

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